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MINI PROJECT

oNLINE NOTES sHARING SYSTEM - ATHENA

1. **SYNOPSIS**

The primary objective of the Notes Sharing System is to create a seamless, centralized digital platform that enhances communication and collaboration among students and educators. In an increasingly digital academic environment, the system is designed to simplify the process of exchanging study materials, distributing assignments, and fostering healthy academic interaction within classrooms.

From the perspective of administrators, the goal is to provide an efficient tool for managing user data, monitoring platform usage, and maintaining oversight of all uploaded content. The admin panel will serve as the control centre, ensuring that the system operates smoothly and that users adhere to the intended usage guidelines.

For users, the platform offers an interactive and supportive learning space. Users will be able to access academic content shared by the web page, collaborate by sharing their own notes, and stay engaged through a group chat feature tailored for Classroom-wide discussions. The system is also intended to encourage peer-to-peer support, helping users stay updated and involved even outside traditional classroom settings.

1. **INTRODUCTION**

The **Online Note Sharing System** is a web-based platform developed to simplify and enhance the way students and learners exchange academic notes and resources. Designed for a wide range of users—from school students to competitive exam aspirants like JEE and NEET candidates—the system provides a centralized and efficient digital environment for sharing study materials.

Unlike traditional methods that rely on physical distribution or scattered messaging platforms, this system offers a streamlined, paperless solution for uploading, accessing, and organizing notes. Users can securely register, log in, and actively participate in sharing educational content across various study groups.

One of the platform’s standout features is the **reputation system**, which assigns users a score based on the number of quality notes they contribute. This encourages active participation and helps highlight top contributors within the community. The more helpful content a user shares, the higher their reputation grows—fostering a sense of recognition and trust among peers.

Additionally, the system includes a **personal To-Do feature** that allows users to set and manage academic tasks. This helps users stay organized, track their progress, and plan their studies more effectively within the same platform.

With a clean, user-friendly interface and real-time collaboration tools, the Online Note Sharing System empowers learners to support each other, stay organized, and access valuable resources anytime, from anywhere. It is a modern solution tailored for today’s digital learners who seek both convenience and collaboration in their academic journey.

1. **SYSTEM ANALYSIS**

**3.1. EXISTING SYSTEM**

Currently, platforms like **WhatsApp** and **Google Classroom** are commonly used for sharing academic notes. However, these tools are not specifically designed for structured note management, leading to several challenges. In WhatsApp, notes often get buried under unrelated conversations, making it difficult to retrieve older materials. The lack of proper organization and search features means students waste time scrolling through chat histories.

On the other hand, Google Classroom, while more formal, requires users to install additional apps or have specific file viewers (like Google Docs or Google Drive) to access and edit notes. This can be inconvenient, especially for users on limited devices or slower networks. Moreover, both platforms lack features like contributor recognition, task tracking, and centralized repositories—making collaboration and long-term resource management inefficient.

**Drawbacks of existing system:**

* Poor organization
* No version control
* Security issues
* Distractions
* Overload stream
* File format issues

**3.2 PROPOSED SYSTEM**

The proposed system is a next-generation **Online Note Sharing Platform** designed to overcome the limitations of existing tools and offer a more seamless, organized, and user-focused experience. It not only addresses issues such as content retrieval, lack of structure, and dependency on third-party apps, but also introduces enhanced features like user reputation scoring, group-based note organization, and personal task tracking. With a focus on simplicity, accessibility, and collaboration, the system aims to provide a smarter and more efficient solution for academic content sharing and management.

**Advantages**:

* Easy to use web-based system.
* Users can register online.
* Notes are accessible from anywhere.
* Centralized control by administrator.
* Managed notes in a secure manner.

**MODULE DISCRIPTION**

A module is a small, self-contained part which is the building block in software development

that does a specific job. They help in organizing complex programs by breaking them down

into smaller parts.

**Administration module**

The admin can approve creation of study groups and respond to flagged or reported items. They will be able to remove or suspend user accounts. Sends updates or announcements to study groups.

**User management module**

User can create study group and add other users. He can chat in the group and upload or download notes. User can request to join a group and manage downloaded notes. They can also create a "to do" list in the study group

**3.3 FEASIBILITY**

A feasibility study is undertaken to determine the possibility or probability of either improving the existing system or developing a completely new system.it helps to obtain an overview of the problem and to get rough assessment of whether feasible solution exists. This is essential to avoid committing large resources to a project.

**3.3.1 Technical Feasibility:**

**1.Infrastructure:** Cloud-based infrastructure can support large user bases and note storage.

**2.Security:** Implementing robust security measures (e.g., encryption, access controls) can protect user data.

**3.Scalability:** Scalable architecture can accommodate growing user bases and note volumes.

**3.3.2 Economic Feasibility:**

**1.Cost-effectiveness:** Online note sharing can reduce costs associated with physical notetaking and storage.

**2.Revenue streams:** Potential revenue streams include subscription models, advertising, and premium features.

**3.Market demand:** Growing demand for online collaboration and knowledge sharing tools.

**3.3.3 Social Feasibility:**

**1.User adoption:** User-friendly interfaces and intuitive design can facilitate adoption.

**2.Collaboration:** Online note sharing can foster collaboration and knowledge exchange among users.

**3.Community building:** Online platforms can create communities around shared interests and topics.

**APPENDIX A** (Tables)

1. **Admin**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **Datatypes** | **Constraints** | **Description** |
| admin\_id | INT | Primary key,  Auto increment | Unique admin  ID |
| user\_name | VARCHAR(100) | Not null | Username of  admin |
| password | VARCHAR(255) | Not null | Admin’s  password |
| email | VARCHAR(100) | Unique,  Not null | Admin’s  e-mail. |

**2. User**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **datatype** | **Constraints** | **description** |
| user\_id | INT | Primary key,  Auto increment | Unique user ID |
| user\_name | VARCHAR (100) | Unique,not null | User’s username |
| name | VARCHAR (100) | Not null | User’s name |
| email | VARCHAR (100) | Unique,not null | User’s email |
| phone\_no | BIGINT | Unique,not null | User’s phone no |
| password | VARCHAR (255) | Not null | Password of user |
| status | ENUM  (active,banned) | Default ‘active’ | User’s status changed from active If admin  decides |
| reputation\_score | INT | Default 0 | Contribution score |
| Profile\_pic | VARCHAR(255) | null | Profile Pic |
| created\_at | DATETIME | Default current\_time  stamp | Account creation date and time |

1. **Study group**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **Datatype** | **Constraints** | **Description** |
| group\_id | INT | Primary key,  Auto increment | Unique group  ID |
| group\_name | VARCHAR(100) | Not null | Study groups  name |
| user\_id | INT | Not null,  Foreign key→  users | Creator of the groups |
| approved | BOOLEAN | Default false | Approval of  admin |
| created\_at | DATETIME | Default current  \_timestamp | Group creation timestamp |

1. **Group memebers**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **Datatype** | **Constraints** | **Description** |
| members\_id | INT | Primary key,  Auto increment | Unique ID of  group |
| group\_id | INT | Not null,foreign  key→study group | Associated group in  question |
| user\_id | INT | Not null,foreign  key→user | Member of the  group |
| role | ENUM  (members,mode-  Rator) | Default ‘member’ | Member or  moderator |
| status | ENUM(pending,  Joined) | Default  ‘pending’ | ‘pending’,  ‘joined’ |

1. **Group messages**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **Datatype** | **Constarints** | **Description** |
| message\_id | INT | Primary\_key,  Auto increment | Message\_ID |
| group\_id | INT | Not null,foreign  key→study groups | Liked group |
| user\_id | INT | Not null,foreign  key→users | Sender of  message |
| content | TEXT | Not null | Message content |
| time\_stamp | DATETIME | Default current  \_timestamp | When it user  sent |

1. **Notes**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **Datatype** | **Constraints** | **Description** |
| note\_id | INT | Primary key,  Auto increment | Note ID |
| group\_id | INT | Not null,foreign  key→study group | Related group |
| user\_id | INT | Not null,foreign  key→users | Who uploaded |
| title | VARCHAR  (100) | Not null | Title of the  note |
| file\_path | VARCHAR  (255) | Not null | File location |
| upload\_time | DATETIME | Default current  \_timestamp | Time of upload |

1. **Reports**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **Datatype** | **Constraints** | **Description** |
| report\_id | INT | Primary key,  Auto increment | Report ID |
| user\_by | INT | Not null,foreign  key→users | Who reported |
| target\_type | ENUM  (user,message,  note) | Not null | User,message or note |
| target\_id | INT | Not null | ID of reported item |
| reason | TEXT | Not null | Reason for  flopping |
| status | ENUM  (open,resolved,  review | Default ‘open’ | Open or  Resolved or  Under review |
| created\_at | DATETIME | Default current  \_timestamp | Report time |

1. **Announcements**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **Datatype** | **Constraints** | **Description** |
| annoucement\_id | INT | Primary key,  Auto increment | Announcement  \_ID |
| admin\_id | INT | Not null,foreign  key→admin | sender |
| title | VARCHAR  (150) | Not null | Title of  message |
| content | TEXT | Not null | Message content |
| group\_id | INT | Foreign key→  Study group | Group target  (null=all) |
| created\_at | DATETIME | Default current  \_timestamp | When it was  set |

1. **To Do**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **Datatype** | **Constraints** | **Description** |
| to\_do\_id | INT | Primary key,  Auto increment | To do ID |
| group\_id | INT | Not null,foreign  key→study group | Associated group |
| user\_id | INT | Not null,foreign  key→users | Creator of the task |
| task | VARCHAR  (200) | Not null | Task description |
| assigned\_to | INT | Foreign key→  Users nulloble | Optional asssigned user |
| status | ENUM | Default ‘open’ | Open,in progress,done |

**10.Downloaded notes**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field name** | **Datatype** | **Constraints** | **Description** |
| download\_id | INT | Primary key,  Auto increment | Unique download record |
| note\_id | INT | Not null,foreign key→notes | The note that  the user  downloaded |
| user\_id | INT | Not null,foreign key→users | The user who  Downloaded it |
| downloaded\_at | DATETIME | Default current  \_timestamp | When the note  Was download |

**APPENDIX A** (DFD)

Context level DFD

A diagram of a diagram

AI-generated content may be incorrect.

Level 1 DFD for Admin

A diagram of a login

AI-generated content may be incorrect.

Level 1 DFD for User

A diagram of a group

AI-generated content may be incorrect.

**CONCLUSION**

The development and analysis of the Online Note Sharing System through database tables and Data Flow Diagrams (DFDs) have provided a structured and comprehensive understanding of how the system operates. The construction of Entity-Relationship Tables helped in clearly defining the data entities, their attributes, and relationships. Meanwhile, the DFDs at various levels (Level 0, Level 1, etc.) effectively visualized the flow of information within the system, ensuring that user interactions, data processing, and storage mechanisms are logically consistent and well-organized.

Through this structured approach, we were able to identify key system functionalities such as user registration, note upload/download, categorization, feedback management, and administrative control. The tables helped in ensuring data normalization and integrity, while the DFDs highlighted the interaction between users and admin.

In conclusion, the analysis confirms that the Online Note Sharing System is both feasible and scalable, capable of enhancing educational collaboration by simplifying the sharing and accessing of academic resources. The structured design approach paves the way for smooth implementation, future maintenance, and potential upgrades of the system.